



July 5, 2017

Comments of the Mid-Atlantic Renewable Energy Coalition on the Delmarva
Power and Light Company's 2016 Integrated Resource Plan
PSC DOCKET No. 16-1087

The Mid-Atlantic Renewable Energy Coalition ("MAREC") appreciates the opportunity to provide these comments to the Delaware Public Service Commission ("PSC" or "Commission") on the Delmarva Power and Light Company's ("Delmarva" or "DP&L") 2016 Integrated Resource Plan ("IRP"). MAREC generally supports Delmarva's historic approach to procuring renewables, but would like to see additional scenario planning relating to renewables procurement as part of future IRPs. Moreover, MAREC disagrees with various parties' positions that the IRP process is unnecessary.

1. INTRODUCTION

MAREC is a nonprofit corporation that was formed to help advance the opportunities for renewable energy development primarily in the region where the Regional Transmission Organization, PJM Interconnection, LLC ("PJM"), operates. MAREC's footprint includes Delaware, Pennsylvania, Maryland, New Jersey, Ohio, Virginia, West Virginia, North Carolina, and the District of Columbia. MAREC's membership consists of utility scale wind and solar developers, a wind turbine manufacturer, service companies, nonprofit organizations, and a transmission company all dedicated to the growth of renewable energy technologies to boost economic development in the region, improve our environment, and diversify our electric generation portfolio, thereby enhancing energy security. The primary areas of focus of MAREC are to work with state regulators to develop rules and supportive policies for renewable energy; provide education and expertise on the environmental sustainability of

wind and solar energy; and offer technical expertise and advice on integrating variable renewable energy resources into the electric grid.

It is important that Delmarva Power and Light (“DP&L”) has an integrated resource plan in order to anticipate and plan for future energy needs. MAREC’s comments will focus primarily on the way in which the IRP addresses renewable energy. Developing a plan that includes renewables will allow the company to put policies in place that will further reduce the cost of these already cost-effective resources. For instance, supporting long-term contracts for wind and solar energy procured through a competitive process provides a hedge against the volatility of future fossil fuel prices. In addition, these long-term contracts allow financing to be obtained at favorable rates, which ensures that renewable energy projects get developed; creates price stability as wind and solar projects have no fuel costs; and reduces consumer rates due to the competitive process and lower financing costs. Not only do renewables provide cost savings and price stability, but they produce no emissions, improving the air and water quality in the state.

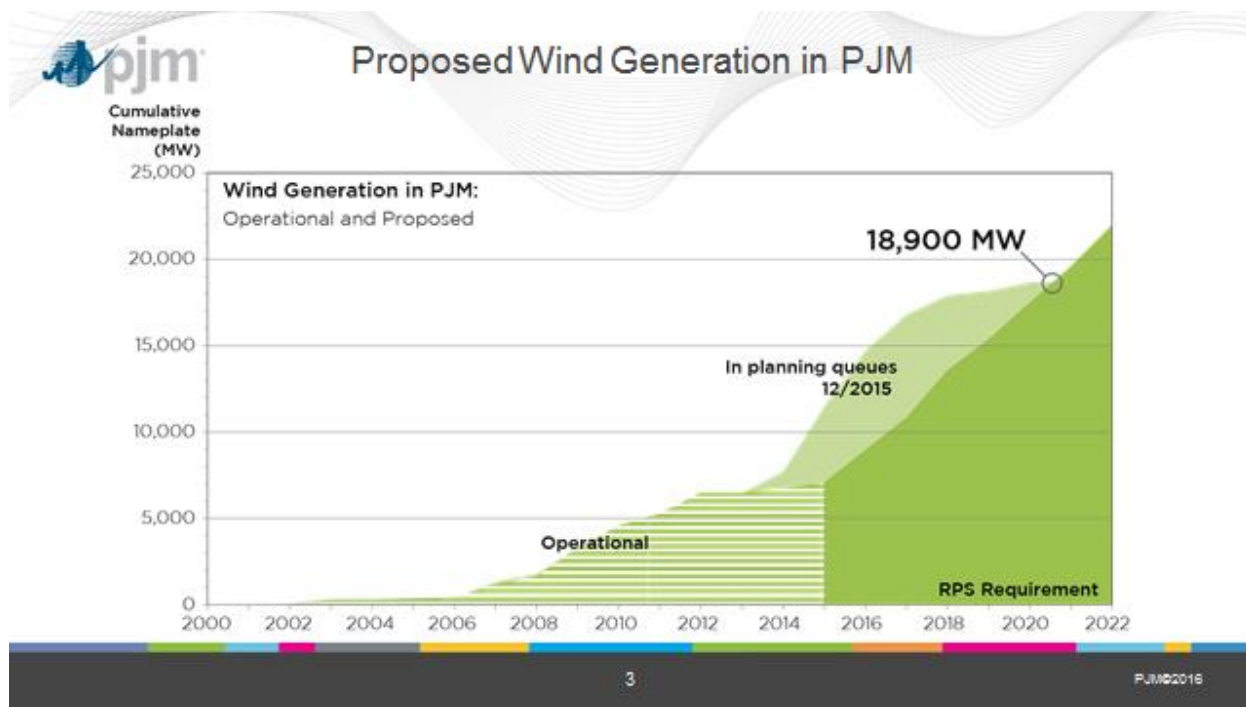
2. DELMARVA’S INTEGRATED RESOURCE PLAN

MAREC believes that DP&L’s IRP generally complies with the public policy requirements of the General Assembly concerning renewable energy procurement, but also contains areas for improvement. We go through those areas here.

Transmission

While current transmission infrastructure and planned upgrades are sufficient to meet the current and projected load requirements of DP&L, we encourage it to examine whether this is sufficient to bring enough renewable energy on the system to meet states’ renewable portfolio standards (“RPS”) requirements, as discussed later. The Regional Transmission Expansion Plan process at PJM was developed to meet reliability standards efficiently, but is also available to help states in PJM meet their state public policy goals like RPS. However, PJM is projecting a shortfall of wind generation to meet RPS standards, as shown below, so the state could have difficulty meeting its RPS goals in the future. DP&L should consider this in future planning, especially as there are no new backbone transmission projects planned in Delaware.¹

¹ DP&L Integrated Resource Plan; Section 6, Page 4.



Source: Stu Bressler, PJM²

RPS Compliance

Currently DP&L complies with RPS goals through long-term contracts for RECs, including 128 MW of wind, 70% of the SRECs from the 10 MW Dover Sun Park, and 30 MW of SRECs from the Delaware Sustainable Energy Utility. Any shortfall remaining after these contract RECs and SRECs are obtained and allowed offsets are subtracted out are purchased on the spot market.³ While fluctuating load will likely always require some RECs and SRECs to be bought on the spot market, the volatility of these prices means that this method of obtaining RECs and SRECs should be minimized. Spot prices are low now, but they will likely rise in the future, and if too much of the REC and SREC market is dependent on these prices that will lead to increasing costs for consumers and more volatile pricing, which is also bad for consumers. Increased long-term contracts and power purchase agreements will lower the dependence

² Integration of Variable Energy Resources in PJM. Presentation by Stu Bressler at Energy Policy Roundtable in the PJM Footprint. March 30, 2016. <http://pjm.raabassociates.org/Articles/Bresler%20Presentation%203-30-16.pptx>

³ DP&L 2016 IRP; Section 1, Page 17.

on the spot market. A benefit from the Exelon merger is that DP&L plans to issue RFPs for 120 MW of wind RECs, which with the current low price of energy will benefit consumers now and in the future.⁴

Modeling

DP&L utilized Pace Global to develop a market assessment to support its modeling efforts. It was based on the load forecast, regional fuel and emission projections, renewable generation profiles, bidding functions, and dynamic capacity expansion.⁵ Dynamic capacity expansion means that increased capacity build out is based on fluctuating capacity prices, leading to tightening of reserve margins and more potential for new entry. This model includes capacity and REC prices as well as energy prices.

As per the statute, the DP&L IRP includes a range of load forecasts.⁶ Since both economic growth and weather can impact load, the load forecasts, which can be used for sensitivity analysis, include a Low Economic Growth Case, a High Economic Growth Case, representing the 10th and 90th percentiles, respectively, and an Extreme Weather Case, representing climate change potential, in addition to the Baseline Forecast, representing the 50th percentile.⁷ These cases do not include Demand Side Management programs, which are calculated separately and then applied to the cases.

On the supply side, the IRP considers many factors, including capital costs for various generation technologies, the expected price of natural gas, the availability of natural gas fuel (by the location of gas pipelines), environmental assumptions, and the price of RECs and SRECs.⁸ It does not perform any sort of sensitivity analysis around most of those numbers. It did examine overall energy prices under a high natural gas price scenario, however.⁹ It looked at how high natural gas prices would affect capacity, REC, and SREC prices, but did not examine how they would affect the overall price of electricity or the corresponding impact on ratepayers.

⁴ DP&L 2016 Integrated Resource Plan; Section 2, Page 2.

⁵ DP&L 2016 Integrated Resource Plan; Section 3, Page 1.

⁶ DP&L 2016 Integrated Resource Plan; Section 4, Page 1.

⁷ DP&L 2016 Integrated Resource Plan; Section 4, Page 4.

⁸ DP&L 2016 Integrated Resource Plan; Section 7.

⁹ DP&L 2016 Integrated Resource Plan; Section 9, Page 10.

While we agree that looking at the sensitivity around various load situations as well as a high gas price was necessary, we argue that it does not go far enough in considering enough of the possibilities in which DP&L will have to provide the necessary supply. There is precedent for considering other variables in the IRP. In 2016 Georgia Power and Light filed its Integrated Resource Plan that included 20 scenarios for sensitivity analysis. In addition to the load and natural gas variation, the IRP examined variations in the in-service dates of supply and demand resources, the forced outage rate for generators, fuel prices, the carbon price, inflation in plant construction costs and costs of capital, the availability and cost of purchased power, and changes in state and federal policy.¹⁰ All of these sensitivities were then analyzed for the impact on rates. Without looking at this important final metric, it is difficult to determine how much each of these inputs can affect the overall rate. In its 2016 North Carolina IRP, Virginia Electric and Power Company looked at scenarios with different carbon restrictions and different fuel prices, and again looked at what the overall impact on the rates would be.¹¹ In 2017 in the Virginia IRP, it went further and included variations in load, solar generation, and new generation capital costs, and again assessed the impact to the ratepayers.¹² Beyond capital costs, none of these analyses, including that of DP&L, looks at sensitivities around renewables pricing or around different scenarios for renewables pricing. Variations in spot prices or obtaining different percentages of RECs from the spot market vs. long-term contracts could potentially have an impact on ratepayers, and that should be modeled.

Carbon

While the Clean Power Plan has currently been stayed, the DP&L IRP assumes that some sort of national carbon price will be in effect by 2022.¹³ While this might be currently infeasible, economists have long agreed that this is the best way to internalize the desire to reduce global climate change by reducing the carbon dioxide into the energy market, and we agree that it is prudent to plan for this. Virginia Electric

¹⁰ Georgia Power Company's 2016 Integrated Resource Plan and Application for Decertification of Plant Mitchell Units 3, 4A and 4B, Plant Kraft Unit 1 CT, and Intercession City CT; Docket No. 40161, Section 6.5.3.

¹¹ 2016 Integrated Resource Plan of Dominion North Carolina Power; Docket No. E-100, Sub 147, Section 4.4

¹² Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq. Case No. PUR-2Q17-00051. Section 6.7, Page 124

¹³ DP&L 2016 Integrated Resource Plan; Section 7, Page 9.

and Power agrees, stating in its 2017 IRP that carbon pricing in the future is “virtually assured.”¹⁴ Delaware is already a member of RGGI, showing that it and other states recognize the need to reduce carbon emissions. PJM is planning scenarios to incorporate carbon pricing into the energy market in the absence of a universal carbon tax, and it is apparent that developing a method for carbon pricing will continue to be a priority for many states until a national policy is eventually implemented.

3. IRP is an ESSENTIAL TOOL

In 2006 the Delaware General Assembly enacted HB 6, the Electric Utility Retail Customer Supply Act of 2006, in response to large increases in electricity rates for Delmarva customers during the electric restructuring process.¹⁵ Among other provisions, this act required DP&L to conduct an Integrated Resource Plan every two years in order to “acquire sufficient, efficient and reliable resources over time to meet its customers’ needs at a minimal cost.”¹⁶ This includes resources that “provide short- or long-term environmental benefits to the citizens of this State (such as renewable resources like wind and solar power),” “promote fuel diversity,” and “encourage price stability.” During the IRP process multiple scenarios for meeting load are examined, making this an essential activity for meeting load in a cost-effective manner while still keeping changing state goals in mind. In fact, the state increased its standard in 2010 to procure 25% of the electricity supply from renewable sources by 2025.¹⁷ Requiring this process every two years ensures that DP&L is planning for changes in the electricity market and is keeping its planning scenarios relevant to current conditions. It is important to understand that Delmarva is not bound to only procure its supply through the SOS auction process. In fact, up to 70% of its supply can be procured through other means in order to ensure that its supply is procured cost-effectively and from environmentally sound resources.¹⁸ Moreover Delmarva must consider demand response and cost-effective renewable energy in its procurement process before considering traditional

¹⁴ Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq. Case No. PUR-2Q17-00051. Section 1.4, Page 10

¹⁵ Delaware General Assembly. HB 6. 143rd General Assembly.
<http://legis.delaware.gov/json/BillDetail/GetHtmlDocument?fileAttachmentId=29429>

¹⁶ 26 Del. C § 1007 (c) (1)

¹⁷ Delaware General Assembly. Senate Substitute 1 for SB 119. 145th General Assembly.
<http://legis.delaware.gov/json/BillDetail/GetHtmlDocument?fileAttachmentId=38955>

¹⁸ Del. C § 1007 (c) (1) a

fossil fuel resources in its supply mix for its retail electric supply obligation.¹⁹ It is not apparent that Delmarva did this in the present IRP. These requirements establish a strong need for the IRP process in Delaware and future IRPs should maintain a healthy focus on these procurement policies.

4. CONCLUSION

Every two years Delmarva Power and Light prepares an Integrated Resource Plan to examine current and future trends in electricity prices and to plan a method for meeting its supply obligation at the lowest cost to consumers. While DP&L's current plan to cover supply while complying with RPS requirements is sufficient, we worry that future transmission, which will be needed to get enough renewables to the state to meet RPS standards, is currently not being anticipated or planned for in the IRP. The methods for RPS compliance need to continue to be examined, because although spot prices are low now, they could increase in the future, and DP&L needs to consider more long-term contracts to meet electricity needs at low prices. The planned RFP for wind development is a good start. Including more sensitivities in the modeling will make it easier to consider whether the current plan is the best way to meet supply needs given an uncertain future. Carbon pricing is especially uncertain, but planning for a future carbon price seems a sensible move. Ultimately, an Integrated Resource Plan is an important process for DP&L to examine its current method of providing electricity to its customers and to ensure that it continues to be the lowest cost solution in an ever-changing energy environment.

Respectfully submitted,



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¹⁹ Del C § 1020 (b)

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE**

IN THE MATTER OF INTEGRATED RESOURCE)
PLANNING FOR THE PROVISION OF)
STANDARD OFFER SERVICE BY DELMARVA) PSC DOCKET NO. 16-1087
POWER & LIGHT COMPANY UNDER)
26 DEL. C. §§1007(c) AND (d))
(OPENED DECEMBER 20, 2016))

CERTIFICATE OF SERVICE

I hereby certify that on this 5th day of July, 2017, I caused a copy of the attached Comments of the Mid-Atlantic Renewable Energy Coalition on the Delmarva Power and Light Company's 2016 Integrated Resource Plan to be served upon the following persons via electronic mail and to be filed with the Delaware Public Service Commission using the Commission's Delafile electronic filing system.

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